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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,376	07/24/2003	Robert S. Greeff	57226-A-RE	2506
7590	07/28/2005		EXAMINER	
Peter J Phillips Cooper & Dunham LLP 1185 Avenue of the Americas New York, NY 10036			LAVINDER, JACK W	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/626,376	GREEFF, ROBERT S.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jack W. Lavinder	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 June 2005.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-23 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 9, 11, 15, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by the French patent, 324092.

Regarding claim 1, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1), a second crown step (top two layers above the first layer), and a flat crown table (b) having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3).

Regarding claim 2, the French patent discloses eight straight rib lines extending continuously from the girdle to the culet (figure 3).

Regarding claim 3, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1), a

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second crown step (top two layers above the first layer), and a flat crown table (b) having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3). The French patent discloses that the pavilion sides and corners each comprise a plurality of facets (d, figure 4).

Regarding claim 9, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1) having a facet corner angle, a second crown step (top two layers above the first layer) having a facet corner angle equal to the first step facet corner angle, and a flat crown table (b) having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3).

Regarding claim 15, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1), a second crown step (top two layers above the first layer), and a flat crown table (b)

having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3).

Regarding claim 21, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1), a second crown step (top two layers above the first layer), and a flat crown table (b) having a single facet with four sides and four corners (short sides). The steps in each side of the crown are defined by straight lines extending from the girdle to the table (figure 2). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3).

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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4. Claims 4-8, 10-14, 16-19, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the French patent in view of Johnston, 5072549.

Regarding claims 4, 5, 8, 14, and 16, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1), a second crown step (top two layers above the first layer), and a flat crown table (b) having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3). The French patent fails to disclose only two facets along each rib line.

Johnston discloses only two facets *along* the rib line (facets 49 and 60, figure 13).

It would have been an obvious design choice to a person having ordinary skill in the art to modify the French patent's pavilion facets to only include two facets extending along the rib line in order to change the aesthetic appearance of the gemstone to improve its marketability and value to prospective new customers.

Regarding claims 6, 7, 11, 12, 13, 17-19, and 23, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1), a second crown step (top two layers above the first layer),

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and a flat crown table (b) having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3). The French patent fails to disclose each pavilion side having at least three facets each having a facet corner intersecting at a common facet intersection point.

Johnston discloses pavilion sides each having at least three facets (55, 60, 60, figure 13) each having a facet corner intersecting at a common facet intersection point (65) about  $\frac{3}{4}$  of the way between the culet and the girdle and a facet (60) with a facet corner at the culet. Johnston also discloses pavilion sides each having four facets (45, 49; 49, 55, figure 13) intersecting at a common facet intersection point, wherein one of the facets is a girdle star facet (45).

It would have been an obvious design choice to a person having ordinary skill in the art to modify the French patent's pavilion facets to only include three facets each having a facet corner intersecting at a common facet intersection point in order to change the aesthetic appearance of the gemstone to improve its marketability and value to prospective new customers.

Regarding claim 10, Johnston discloses pavilion sides being devoid of any facet intersection lines parallel with the girdle.

5. Claims 20 and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over the French patent in view of Johnston, as applied above, and further in view of Remidio, D369758.

Regarding claims 20 and 22, the French patent in view of Johnston fails to disclose each pavilion side having a four-sided facet with a facet corner at the culet. Remidio discloses a four-sided facet, bottom facet in figure 2, having a corner facet at the culet and a corner facet intersecting with the other less than four-sided facets.

It would have been an obvious choice to modify the French or Johnston pavilion facets to include a four-sided facet with a corner of the facet intersecting with the culet in order to improve the aesthetic appearance of the gemstone to improve its marketability and value to prospective new customers.

#### ***Response to Arguments***

6. Applicant's arguments filed 6/8/05 have been fully considered but they are not persuasive. The applicant argues that the French patent fails to disclose a mixed cut stone, wherein a mixed cut stone is defined as (1) a stone having all step-cut facets in the pavilion and all brilliant-cut facets in the crown or (2) all step-cut facets in the crown and all brilliant-cut facets in the pavilion. The examiner disagrees. The French patent discloses a crown in the shape of an emerald-cut as defined by applicant's limitations of the crown in claim 1 and a pavilion in the shape of a brilliant cut as defined by applicant's limitations of the pavilion in claim 1. If the French patent meets all the structural limitations defined in the claims, one must assume that the stone is a mixed cut gemstone. Since the applicant has failed to show any distinctions between the

claimed crown and pavilion limitations and the crown and pavilion structure disclosed in the French patent, the claims are anticipated. Also, the body of the claim fails to glean any meaning from the preambular term mixed cut and therefore the French patent meets all the claimed structural limitations.

The applicant argues that the 103 rejection based on the French patent and Johnson are not combinable. The examiner respectfully disagrees. Both patents are directed to producing aesthetically pleasing gemstones by providing facets with different shapes and angles to produce a visually appealing appearance. One of ordinary skill in the art would be motivated to change the pavilion facets in the French patent to only include two facets along the rib line as taught by Johnson to produce a different looking and appealing gemstone. The use of only two facets on the rib line of the pavilion changes the brilliance, color and/or clarity of the stone. One of ordinary skill would be motivated to improve all three of these characteristics in order to make the stone more appealing to the wearer.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

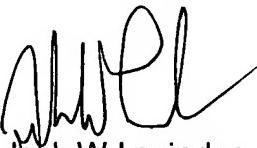
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack W. Lavinder whose telephone number is 571-272-7119. The examiner can normally be reached on Mon-Friday, 9-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jack W Lavinder  
Primary Examiner  
Art Unit 3677

7/23/05